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T.B.

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/424,223 04/19/95 HUMMEL

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EXAMINER

WORRELL JR, L

ART UNIT

PAPER NUMBER

3765

DATE MAILED: 04/19/01

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
08/424,223

Applicant  
Hummel

Examiner  
Danny Worrell

Group Art Unit  
3765



☒ Responsive to communication(s) filed on 1/2/01

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1, 11, 12, 15, 16, 35, and 36 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1, 11, 12, 15, 16, 35, and 36 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Claims 1, 11/1, 12/11/1, 15/1, 16/11/1, 35/1 and 36/35/1 are rejected under 35 U.S.C. § 103 as being unpatentable over Bettcher in view of the admittedly known normal strength fiber or yarn VECTRAN M described in appellant's specification at pages 2-4. Bettcher discloses a cut-resistant yarn (Fig. 1) having the construction broadly set forth in claim 1 on appeal, with the exception that this patent does not disclose or teach that "at least one of" the core, first wrapping and second wrapping of the composite yarn therein be comprised of a liquid crystal polymer fiber having a tenacity of no more than 10 grams per denier. However, Bettcher does teach that the yarn therein has a second wrapping or winding (14) which is preferably one having low friction, light weight, a silk-like hand, that is fast drying, resistant to light and low in cost, preferably, for example, nylon or a polyester (e.g., Dacron), both of which are recognized as normal strength fibers. Similarly, appellant's specification (pages 2-4) and brief (pages 13-14)<sup>1</sup> indicate that VECTRAN M sold by Hoechst Celanese Corp. is a normal strength fiber having good abrasion resistance, high impermeability, excellent property retention over a broad temperature range, low moisture absorption, can be laundered at high temperatures conventionally used for industrial fabrics, etc.. Given the nature of the known VECTRAN M fiber vis-a-vis the other normal strength fibers (e.g., nylon and polyester) for use in the second wrapping (14) of

Bettcher, it is our opinion that it would have been obvious to one of ordinary skill in the art at the time of appellant's invention to use the normal strength synthetic fiber VECTRAN M as one of the fibers for the second wrapping (14) of Bettcher so as to gain the self-evident benefits thereof relative to the underlying high strength Kevlar fiber wrapping (12) over which it would be applied. As for the claims requiring a metal strand in the cut-resistant yarn, we note the disclosure of Bettcher at column 1, lines 46-58, and column 2, lines 51-55. Bettcher also discloses (e.g., Fig. 2 and col. 4, line 48+) that the composite yarn therein may be formed into protective apparel, such as a cut-resistant protective glove.

### *Response to Arguments*

Applicant's arguments filed 01/02/01 have been fully considered but they are not persuasive. Applicant argues that the inclusion of the characteristic term "cut resistant" added to claim 1 makes it and its dependent claims allowable over the rejections set forth by the Board of Patent Appeals and Interference in the decision mailed 10/27/00. The examiner disagrees. As pointed out on page 11 of the Board decision, it would have been obvious to substitute Vectran M for the polyester or nylon of Bettcher since Vectran M is a normal strength fiber having good abrasion resistance, high impermeability, excellent property retention over a broad temperature range, low moisture absorption, etc.. The fact that applicant has recognized another advantage, namely "cut resistance", which is evident by the substitution of Vectran M for polyester or nylon

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cannot be a basis for patentability when the differences would otherwise be obvious. Clearly in this case it is obvious to substitute Vectran M of Polyester or nylon for the reasons discussed supra. Identifying an additional advantage such as "cut resistance" does not warrant patentability.

The declaration of inventor Hummel filed under 37 CFR 1.132 filed 01/02/00 is insufficient to overcome the rejection of claims 1, 11, 12, 15, 16, 35 and 36 based upon Bettcher in view of the admittedly known Vectran M yarn described in appellant's specification at pages 2-4 as set forth by the Board of Patent Appeals and Interferences in the decision mailed 10/27/00. Page 2 of the Hummel declaration states that the cost of Vectran M is 10 to 12 times greater than that of polyester or nylon. Additionally, Hummel's declaration states that Vectran M is stiffer than polyester or nylon and therefor is an unobvious substitution for the polyester or nylon wrap of Bettcher. These two arguments as well as Hummel's opinion of obviousness are also set forth at page 2-4 of applicant's remarks. As recognized by the Board, it is obvious to one of ordinary skill in the art to substitution Vectran M for the polyester or nylon wrapping of Bettcher so as to gain the self-evident benefits namely good abrasion resistance, high impermeability, excellent property retention over a broad temperature range, low moisture absorption, etc.. The fact that the cost of Vectran M is 10 to 12 times more than that of polyester or nylon in no way precludes a determination of obviousness given the benefits attributed to Vectran M. Concerning applicant's argument of increased stiffness, there is nothing within the disclosure the Bettcher that

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would preclude the inclusion of a slightly stiffer fiber such as Vectran M as a wrapping. As such this argument does not overcome the conclusion of obviousness.

### *Conclusion*

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Danny Worrell whose telephone number is (703) 308-0889. Messages placed on voice mail will be returned by the end of my next business day.

The fax phone number for this Group is (703) 308-0758.


Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.

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Any inquiry concerning the Draftsperson's drawing review should be directed to the Chief Draftsperson whose telephone number is (703) 305-8404.

LDW  
April 9, 2001

  
Danny Worrell  
Primary Examiner  
TC 3700